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CANADA'S NEW NORTHLAND

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by Trevor Lloyd



Arctic Institute of North America scientists taking ice cores from the Ellesmere Ice Shelf.



N.F.B. Photo

Dr. E. T. Tozer recording rock formations on Ellesmere Island, has decade of arctic geological survey experience.



N.F.B. Photo

Summer survey camp established on sandbar near Spence Bay, Boothia Peninsula, N.W.T.

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Trevor Lloyd is Professor of Human Geography and Chairman of the Department of Geography, McGill University, Montreal. Born in London, England, in 1906, he earned his B.Sc. ('29), Education Certificate ('31) and D.Sc. in Geography ('49) at Bristol University. From 1938 to 1940 he attended Clark University on a fellowship, taking his Ph.D. in Geography. Before and after attending Clark, he served the Winnipeg School Board as a specialist in geography, leaving this post in 1941 to become assistant professor of Geography at Carleton College. In 1942 he joined the faculty of Dartmouth College, where he was full professor from 1944 to 1959, the year he went to McGill.

Dr. Lloyd has served as Acting Consul for the Canadian Government in Greenland ('44 to '45); Chief of the Geographical Bureau, Department of Mines and Resources, Ottawa ('47 to '48); and Project Officer, Royal Commission on Government Organization, Canada ('61 to '62).

He has received research grants from the Rockefeller Foundation, the Carnegie Corporation, and the Canada Council. He is a Governor of the Institute of Current World Affairs and a member of the Canadian Institute of International Affairs, the Association of American Geographers and the Canadian Association of Geographers (which he has served as president). He is also a fellow of the American Geographical Society and the Royal Geographical Society, and a fellow and governor of the Arctic Institute of North America (editor of "Arctic", '47 to '48).

Dr. Lloyd has travelled widely in northern lands, particularly in Scandinavia and Greenland, and has twice visited the Soviet Union. His special interests are regional geography, geography of northern lands, and geography in education. In 1944 he was awarded an honorary M.A. by Dartmouth College.

Sixty years ago a small Norwegian herring fishing boat, named *Gjoa*, was working its way westward from the Atlantic to the Pacific along the north coast of the Canadian mainland. Her captain, Roald Amundsen was in search of the Northwest Passage, on a voyage which was not completed for another three years. Today it is possible to telephone to that once remote part of the country from southern Canada. Places once inaccessible to all but the most hardy and enterprising explorers are now visited regularly and even casually by airline passengers no better equipped for adventuring than is the ordinary city dweller. The northland today is not what it used to be, nor is it the frigid, unfriendly wilderness of so many adventure stories. Yet most of us still know very little about the true state of affairs, mainly because too few Canadians have ever seen it, far less lived there.

A map of Canada's population is a striking document. Four centuries have passed since Europeans began settling here, yet the map shows us to be crowded along the southern margins of the country, as if we were unwilling to move far from the United States border. Few of our large cities are more than a hundred miles from it, while north of them is more than two thousand miles of sparsely settled territory. Almost all Canadians live in the railway and highway belt, extending from sea to sea, and most of us are content never to venture north of it.

Why do we, a rugged, venturesome, northern people by tradition, show such a strong urge to stay as far south as we can? In part it is a matter of history, and the rest is largely due to geography. Early settlement spread from the Atlantic by way of the St Lawrence and the Great Lakes, while some spilled northward from the eastern United States. Most of these newcomers originated in lands which were mild and maritime. They found the Canadian winters something of a shock and naturally settled in those places where they could make a living easiest. Eventually their successors worked their way westward to the Pacific. Railways and later on highways perpetuated the traditional east-west routes used by the early settlers. This served to tie people to the southern part of the country. Small in numbers and backed by very little capital they did remarkably well in occupying the most readily productive parts of their new homeland. Most of this was accomplished half a century or more ago, before the era of the truck and the automobile, the aeroplane and the radio. The overall pattern of Canadian

settlement has not changed dramatically since. There has been some penetration of the forests beyond the farmlands, but we have failed to settle the northlands as our forefathers did the south and the west. The explanation is largely a matter of geography.

As late as the Second World War, much of northern Canada remained virtually unknown. Good maps did not exist, large areas had not even been photographed from the air, and we were ignorant of its resources and its potentialities. The North remained, in spite of Amundsen, and many explorers before him and since, pretty much an unknown country. And because it was unknown, it was feared. The wave of settlers which swept westward across North America was discouraged by the vast northern forests, the lake strewn and rocky plateaus, the winter cold and the sheer unfamiliarity of the vast barren grounds beyond the treeline. It was left to a few traders, a handful of missionaries, the Mounted Police, and the Eskimos who for some unaccountable reason seemed positively to enjoy it.

All this has changed in a single generation. Today no part of the Northland is really inaccessible: all of it has been photographed and mapped: the general pattern of the resources is now familiar: and the long distances and the climate have ceased to scare us. At long last Canadians are beginning to feel as much at home in northern Canada, as were the Russian Cossacks and other Siberian pioneers about two hundred years ago! From now on progress should be encouragingly rapid and the rewards correspondingly great. But before pursuing this theme further, let us consider a little more geography.

We know that southern Canada is far from being alike from place to place. The hundreds of miles of flat and rolling prairies are in striking contrast to the Rockies farther west. The level St. Lawrence Lowland is very different from the Laurentians to the north and the Appalachians to the south. Prairie winters are far more severe than those of coastal British Columbia. We must expect to find similar contrasts farther north. The Precambrian Shield so familiar in Algonquin Park and the Lake of the Woods continues northward for more than a thousand miles. To the west of it, the Mackenzie River flows through a broad lowland whose surface is not unlike the prairies. High mountain ranges lie to the northwest and on the east between Labrador and the Arctic Ocean. The Queen Elizabeth Islands, the northernmost lands in Canada, include high mountains, rugged and crowned by ice-sheets, but elsewhere the land is low and flat

and ice-free. The climate also varies strikingly. Summers can be very warm northward from Edmonton as far as the Mackenzie delta, and equally so on the tundra west of Hudson Bay. They may be pleasant on even the remotest arctic islands. Winters too vary in length and severity, so that it is unwise to generalize about them. One thing is sure: the old fear of a vast, frigid ice-box of a place has gone, for today we know and understand the northland as it really is.

How far has settlement gone in this enormous area? Is there anything there to attract young Canadians in search of an interesting career? There are three ways in which the northland can offer an attractive livelihood. Some may wish to live there permanently, settle down in modern communities, bring up a family and call the place home. For others there will be temporary careers involving some years of northern living, before a return south to settle down for good. Many more will find opportunities for spending considerable periods in the north, usually in the summer season, as part of a career based farther south.

What careers do today's northern residents follow? They can be divided into two groups: those engaged directly or indirectly in work for government, and those employed by private industry or who work for themselves. There are now about four thousand permanent employees of the federal government in the Northwest Territories and Yukon. Each summer they are joined by roughly three thousand more temporary employees. Many departments contribute to this impressive total, but the largest are Northern Affairs and National Resources, Transport, National Defence, National Health and Welfare and the Mounted Police. Such government staffs work in the north very much as they would farther south. There are for example agricultural research scientists who supervise experimental farms; the Canadian Broadcasting Corporation operates radio stations with programmes which have a special northern flavour; the Department of Fisheries supervises commercial fishing operations and does research aimed to expand them; there are government hospitals staffed by doctors, nurses and technicians; the new northern schools are as well-designed, equipped and staffed as any in the country. Electricity must be provided for northern communities, so there are engineers and technically trained operators at the scattered power stations; the Post Office personnel take care of the mail; and radio, telephone and telegraph operators have tasks much like those farther south. Aeroplanes require servicing at northern airports, there must be accurate weather forecasts based on regular weather observations at hundreds of stations. Soldiers, sailors and airmen, though not numerous, have important duties. Most of them calling for



high technical skills. Scientists seem to be more in evidence in the northland than elsewhere. Some of them live there throughout the year, while others arrive in spring and leave in the late fall. Among them are geologists who probe the rocks for minerals and to learn how the earth is put together: geographers are at work on ice-caps or studying the land surface or the distribution of sea ice: map-making continues as does study of the aurora, of earth magnetism, earthquakes and even outer space and the interior of the earth itself. These and many other subjects receive careful attention from hundreds of field and laboratory scientists.

All northern residents, whatever their duties, have some things in common. They need homes to live in and offices or laboratories in which to work. These must be built and maintained, so construction is a very important northern activity. Everyone needs some form of transportation. Some regularly use the aeroplane, others go by ship or boat, some need a dog team and others a helicopter. Much of the transformation of the northland which has gone on in the past generation has been made possible by better means of travel and communication. Challenging and rewarding careers exist in providing for these essential needs.

Most of the work described so far has been a concern, direct or indirect of the government. Those who do such work are employed by one or another government department. But what of the many people who work for private industry, or are engaged in trade or commerce? Here again the picture is not unlike that farther south. The same skills are in demand, there is the same scope for enterprise and intelligence, and the able man or woman has at least as good opportunities to get ahead. In some cases promotion is faster, because there is less detailed supervision and greater freedom of action. In large settlements such as Fort Smith, Yellowknife, Whitehorse or Inuvik, there are the usual privately owned stores and service agencies. Most of those working in them have made permanent homes in the north, and many of them were born and brought up there. Drug stores, garages, beauty parlours, banks, hardware stores and even shopping centres are usual, and they sell the same articles and provide the same services as in more southerly towns. There are also much larger trading enterprises in the north, with the Hudson's Bay Company the oldest and best known of them.

On a still larger scale are undertakings such as mining, oil production, construction and commercial aviation. Some of this work continues all year round, as in the Yellowknife gold mines, but summer is an exceptionally busy season, when surveying and prospecting, drilling and the erection of large buildings must

go on. Then drill rigs may be scattered from Yukon to the Queen Elizabeth Islands and field camps dot the tundra.

One fact about northern careers should be emphasized. Those who secure good positions are those with the highest qualifications. No longer is there scope for the unskilled person with strong muscles and a willingness to use them. Today skill and a sound education are imperative. The engineer, the physicist, the geologist, the man or woman trained in medicine or hospital technology, the accountant, surveyor, the research scientist, the expert mechanic or radio technician, and other such well-equipped people are those who will populate the north. Such demand as may exist for unskilled labour can be met by those who already live there. Modern industry and modern government puts a premium on expertise in the north as elsewhere.

One of the most demanding yet interesting new northern opportunities lies in educating the boys and girls whose homes are there. Some may be of Eskimo or Indian parentage, and expect to play a large part in the area's future. School standards are rising rapidly and only very well qualified teachers can expect to secure positions. Another challenging government position is that of Northern Service Officer—the official who supervises a wide range of activities in the smaller communities. There is no better way of learning about the north or of sharing in its development.

So in the mid-twentieth century, Canada is finally ceasing to be a long, narrow land stretched east-west along the United States border. It is beginning to acquire much-needed depth. Those whose careers lie ahead of them, and who would like to share in developing this new northern frontier, should think seriously about qualifying themselves to work there. The Civil Service Commission in Ottawa, is responsible for selecting staff for most federal government departments and has a record of career positions which are available. The Department of Northern Affairs, also in Ottawa, is particularly interested in hearing from well-qualified and enterprising candidates for a wide range of positions. Anyone who is interested in a northern career but who does not wish to leave the provinces, may find an opportunity for employment in the subarctic parts of Newfoundland (Labrador), Quebec, Ontario or the Prairie Provinces. Those with scientific interests which may be applicable to the north should get in touch with the particular government agency concerned or write to the Arctic Institute of North America, 3458 Redpath Street, Montreal.

Young Canadians have behind them a long tradition of using summer jobs, as a means for testing out possible future careers. This is sometimes possible in northern Canada.